

Title (en)

Dynamic random access memory device having a plurality of one transistor type memory cells.

Title (de)

Aus einer Vielzahl von Eintransistorspeicherzellen bestehende dynamische Speichervorrichtung mit wahlfreiem Zugriff.

Title (fr)

Dispositif de mémoire dynamique à accès aléatoire comprenant une pluralité de cellules de mémoire à un seul transistor.

Publication

**EP 0287056 A2 19881019 (EN)**

Application

**EP 88105871 A 19880413**

Priority

JP 9116787 A 19870413

Abstract (en)

A dynamic random access memory device having one transistor type memory cells is disclosed. The memory cell includes a trench type storage capacitor and a transfer gate transistor. The dielectric film of the capacitor is formed in the trench such that the upper part of the film above the upper wall of the trench adjacent to the major surface of the substrate is thicker than the other parts of the film in the trench.

IPC 1-7

**H01L 27/10**

IPC 8 full level

**H01L 27/04** (2006.01); **H01L 21/822** (2006.01); **H01L 21/8242** (2006.01); **H01L 27/10** (2006.01); **H01L 27/108** (2006.01); **H01L 29/94** (2006.01)

CPC (source: EP KR US)

**G11C 11/34** (2013.01 - KR); **H01L 27/04** (2013.01 - KR); **H01L 29/945** (2013.01 - EP US); **H10B 12/00** (2023.02 - KR); **H10B 12/37** (2023.02 - EP US)

Cited by

EP0822597A3; EP0822591A1; US5843819A; US5334547A; EP1670064A1; EP0546976A1; GB2238909A; EP0399060A1; EP0376685A1; EP0644591A1; US6100130A; EP0399191A1; EP0794576A3; US7355666B2; US6534814B2; KR100268206B1; KR100267431B1

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

**EP 0287056 A2 19881019**; **EP 0287056 A3 19890614**; **EP 0287056 B1 19950809**; DE 3854278 D1 19950914; DE 3854278 T2 19960321; JP S6427252 A 19890130; KR 880013252 A 19881130; KR 910002814 B1 19910504; US 4918503 A 19900417

DOCDB simple family (application)

**EP 88105871 A 19880413**; DE 3854278 T 19880413; JP 9052088 A 19880412; KR 880004173 A 19880413; US 18103088 A 19880413